



PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Overman et al.)
Serial No.: 09/694,653)
Filed: October 23, 2000) Art Unit: 3652
For: **FLATS MAIL AUTOTRAYING**) Examiner: C. Fox
SYSTEM)

Commissioner for Patents
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3-10-05

Date

APPELLANTS' BRIEF

Sir:

In support of Applicants' appeal, and in accordance with 37 CFR 41.37, Applicants herein submit this Appellants' Brief in response to the Final Office Action mailed October 8, 2004 and the Advisory Action mailed February 28, 2005.

I. Real Party in Interest

Bowe Bell + Howell Postal Systems Company of Wheeling, Illinois is the real party in interest in this application.

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II. Related Appeals and Interferences

There are no prior or pending appeals, interferences or judicial proceedings known to appellants, appellants' legal representative, or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

III. Status of Claims

Claims 1-50 are pending in this application. Claims 1-50 as set forth in the Claims Appendix (Section VIII) below, have been finally rejected for the reasons set forth in the Office Action mailed October 8, 2004, and as maintained in the Advisory Action of February 28, 2005. Claims 1-50 are the claims being appealed.

IV. Status of Amendments

The Amendment filed after the final rejection, on January 10, 2005, has NOT been entered by the Examiner.

V. Summary of Claimed Subject Matter

As a general overview, this application relates to an autotraying method and system for flats mail (large format pieces of mail). The method and system combines multiple small stacks of

mailpieces into a single large stack of mailpieces and then transfers the large stack to a mail tray, all while maintaining the sequence order of the mail in the accumulated large stack. The method and system is comprised of three primary subsystems: a bridge conveyor, a stack accumulator, and an output tray station. The bridge conveyor carries small stacks of mailpieces from the exit conveyor of a mail processing machine to the stack accumulator. The stack accumulator combines multiple small stacks of mailpieces into a single large stack in a desired sequence, via a fork lift assembly cycle. This process continues until the single large stack obtains a certain height, at which time the large stack is transferred into a mail tray. The output tray station supports an empty tray while the accumulated large stack is transferred to the tray, and then releases the filled tray in a controlled manner.

Accordingly, the following is a concise explanation of the subject matter of each of the independent claims involved in the appeal, as well as every means plus function and/or step plus function appearing in the claims:

Independent Claim 1 defines a flats mail autotrayer system (see e.g., Figures 1-4) comprising means for combining multiple small stacks of mailpieces into a single large stack of mailpieces

while maintaining sequence order (Stack accumulator 50, shown in Figures 1-4, 6-9 and 13; and described in page 7, lines 9-18; page 9, line 13 to page 10, line 18; page 12, line 1 to page 14, line 20); and means for transferring said large stack to a tray (Rollers 55, 60, 85, shown in Figures 7-9; and described in page 14, line 21 to page 15, line 13).

Dependent Claim 2 adds (to Claim 1) means for releasably engaging a tray (latch 125, cylinder 126 and disc 127, shown in Figures 10, 11, 14 and 15; and described in page 15, lines 14-21).

Dependent Claim 3 adds (to Claim 1) means for conveying a stream of small stacks of mailpieces (Bridge conveyor 20, shown in Figures 2-6 and 12; and described in page 7, lines 4-8; page 8, line 21 to page 9, line 12; page 12, line 1 to page 13, line 2) to said means for combining (see Claim 1 above).

Dependent Claim 4 indicates that the means for combining (of Claim 1) includes a fork lift assembly (reference number 80, shown in Figures 1-3, 7, 8 and 13; and described in page 7, lines 11-18; page 10, lines 1-11; page 13, line 7 to page 14, line 20).

Dependent Claim 6 indicates that the means for transferring (of Claim 1) includes a plurality of driven rollers (Rollers 55, 60, 85 shown in Figures 7-9; and described in page 14, line 21 to page 15, line 13).

Dependent Claim 7 indicates that the means for transferring (of Claims 1, 6) further includes a means for pushing (pusher arm 100, shown in Figures 8-9; and described in page 14, line 21 to page 15, line 13).

Independent Claim 8 defines a method of flats mail autotraying, comprising the steps of combining multiple small stacks of mailpieces into a single large stack of mailpieces while maintaining sequence order (shown in Figures 1-4, 6-9 and 13; and described in page 7, lines 9-18; page 9, line 13 to page 10, line 18; page 12, line 1 to page 14, line 20); and transferring said large stack to a tray (shown in Figures 7-9 and 13-15; and described in page 14, line 21 to page 15, line 13).

Independent Claim 15 defines an apparatus for combining multiple small stacks of mailpieces into a single large stack of mailpieces and then transferring the large stack to a standard flats mail tray, comprising:

a bridge conveyor (reference number 20, shown in Figures 2-6 and 12; and described in page 7, lines 4-8; page 8, line 21 to page 9, line 12; page 12, line 1 to page 13, line 2);

a stack accumulator (reference number 50, shown in Figures 1-4, 6-9 and 13; and described in page 7, lines 9-18; page 9, line 13 to page 10, line 18; page 12, line 1 to page 14, line

20) proximate said bridge conveyor; and

an output tray station (*reference number 120, shown in Figures 2-4, 10, 11, 14 and 15; and described in page 8, lines 16-20; page 11, lines 1-22; page 14, line 21 to page 16, line 4*) proximate said stack accumulator;

said bridge conveyor receiving a stream of small stacks of mailpieces and sequentially delivering said small stacks of mailpieces to said stack accumulator (*see above reference to specification for the bridge conveyor*);

said stack accumulator combining said small stacks of mailpieces into said large stack in a desired sequence, and transferring said large stack to said tray (*see above reference to specification for the stack accumulator*);

said output tray station engaging an empty tray as said large stack is transferred to the tray, and releasing said tray once filled (*see above reference to specification for the output tray station*).

Independent Claim 40 defines a method for combining multiple small stacks of mailpieces into a single large stack of mailpieces and then transferring the large stack to a standard flats mail tray, said method comprising the steps of:

conveying a stream of small stacks of mailpieces to a

stack accumulator (50) via a bridge conveyor (20) (shown in Figures 2-6 and 12; and described in page 7, lines 4-8; page 8, line 21 to page 9, line 12; page 12, line 1 to page 13, line 2);

combining said small stacks of mailpieces into said large stack in a desired sequence via said stack accumulator (50) (shown in Figures 1-4, 6-9 and 13; and described in page 7, lines 9-18; page 9, line 13 to page 10, line 18; page 12, line 1 to page 14, line 20); and

transferring said large stack to said tray via said stack accumulator (50) (shown in Figures 7-9; and described in page 14, line 21 to page 15, line 13).

VI. Grounds of Rejection to be Reviewed on Appeal

- 1) Whether Claims 1-7 and 15-39 are anticipated under 35 U.S.C. §102(b) by Belgian Patent No. 628233, as rejected in the Final Office Action mailed October 8, 2004, and as maintained in the Advisory Action of February 28, 2005.
- 2) Whether Claims 8-14 and 40-50 are clearly anticipated under 35 U.S.C. §102(e) by Hendrickson et al., U.S. Patent No. 6,241,099 as rejected in the Final Office Action mailed October 8, 2004, and as maintained in the Advisory Action of February 28, 2005.

VII. Argument

- 1) Whether Claims 1-7 and 15-39 are anticipated under 35 U.S.C. §102(b) by Belgian Patent No. 628233, as rejected in the Final Office Action mailed October 8, 2004, and as maintained in the Advisory Action of February 28, 2005.

Claims 1-7 and 15-39 have been rejected under 35 U.S.C. §102(b) as being anticipated by Belgian Patent No. 628233 (the "Belgium '233 patent"). For the following reasons, the Examiner's rejection is respectfully traversed.

The Belgium '233 patent is not the same ("identity of invention") as Claims 1-7 and 15-39, and thus does not anticipate the same under the law pertaining to 35 U.S.C. §102:

[A]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. ... The issue is decided by identifying the elements of the claims, determining their meaning in light of the specification and prosecution history, and identifying corresponding elements disclosed in the allegedly anticipating reference....

An anticipatory reference must clearly and unequivocally disclose the claimed invention or direct those skilled in the art to the claimed invention without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the reference. ... [A]n anticipation must speak affirmatively and with certainty; must disclose the invention without debate; ... (emphasis added, citations omitted) Idacon Inc. v. Central Forest Products Inc., 3 USPQ2d 1079, 1089 (ED Ok 1986). Accord: Glaverbel S.A. v. Northlake Marketing & Supply Inc., 33 USPQ2d 1496, 1498 (CAFC 1995).

As discussed below, the elements of Claims 1-7 and 15-39, as determined or interpreted in light of the specification and drawings, are not anticipated by the cited prior art. Applicants respectfully assert that the Examiner's anticipation rejection fails to meet the above identified requirements of the law pertaining to 35 U.S.C. §102. Applicants further repeat and reallege all of the arguments made in its prior Amendment and Response of June 28, 2004, as though fully stated herein.

Prior to discussing the individual claims, the following is a general overview of the Belgium '233 patent provided for ease of understanding. The Belgium '233 patent does not combine multiple small stacks of mailpieces into a single large stack of mailpieces, and is largely unrelated to the art of mail processing. The Belgium '233 patent relates to a machine for packing boxes, cans or other such items into a case or large box. No stacks of any items, let alone multiple stacks of any item, are being combined into a single large stack. Instead, a row of single items W is lifted and place upon a platform or rails 40, while another row of single items X is moved under the rails 40. Items W and X are not stacked and never touch until they are subsequently fed directly into and packed side by side in a box (see Figures 2 and 3 - items W and X

do not touch until they enter the box 170).

In other words, at best, the Belgium '233 patent creates a "item-over-item" shelf-like arrangement, W on a shelf above X, of a row of items (see Figure 2). A single item W is placed on rails 40, above another single item X to form the item-over-item shelf-like arrangement, with four such arrangements in a row (as opposed to a stack), without touching (see Figure 3). Never does the Belgium '233 patent ever position more than one single article over another single article, and never is a stack formed. Thus, unequivocally, no existing stack or multiple stacks is/are placed upon another existing stack to form a single large stack in the Belgium '233 patent. For this reason alone, *inter alia*, the Belgium '233 patent does not anticipate Claims 1-7 and 15-39.

The Examiner states on page 3 of the Final Office Action that the Belgium '233 patent "*meters four articles (the small stack) at a time to form a large stack consisting of eight articles.*" This statement is inaccurate and cannot properly serve as the basis of an anticipation rejection under the law pertaining to 35 U.S.C. §102. The four articles are simply not in a stack in the Belgium '233 patent. They are simply four single items in a horizontal row. Additionally, there is no large stack of eight articles in the Belgium '233 patent. Instead, there is a horizontal row of

four items positioned on a shelf or rail 40 over, but not touching, another horizontal row of four items (item-over-item shelf-like arrangement in rows of four). The Belgium '233 patent does not clearly and unequivocally disclose the creation of a single large stack from the combination of multiple small stacks as claimed in Claims 1-7 and 15-39.

Accordingly, under the law pertaining to 35 U.S.C. §102, the Belgium '233 patent clearly fails to anticipate numerous elements in Claims 1-7 and 15-39, argued separately below:

Claim 1

For the reasons discussed above, the Belgium '233 patent does not disclose a means for combining multiple small stacks of mailpieces into a single large stack of mailpieces. There is no single large stack of mailpieces created from combining multiple small stacks of mailpieces in the Belgium '233 patent, only a row of single items placed on a shelf or rails above another row of single items, prior to being pushed into a box. Since no single large stack is created, or any stack for that matter, there also is no means for transferring a large stack of mailpieces to a tray. As such, the Belgium '233 patent does not anticipate Claim 1.

Claim 2

Further, the Belgium '233 patent does not disclose a means for

releasably engaging a tray. Elements 172 and 180 of the Belgium '233 patent, identified as the means for releasably engaging by the Examiner in the February 27, 2004 non-final Office Action, do not releasably engage box 170, but only freely support the box. As such, the Belgium '233 patent does not anticipate Claim 2.

Claim 3

Further, the Belgium '233 patent does not disclose a means for conveying a stream of small stacks of mailpieces to a means for combining. The conveyor in the Belgium '233 patent conveys single items in a row and would be ineffective to convey stacks of mailpieces. As such, the Belgium '233 patent does not anticipate Claim 3.

Claim 4

Further, the Belgium '233 patent does not disclose a means for combining multiple small stacks including a fork lift assembly. As discussed above, the Belgium '233 patent does not disclose means for combining multiple small stacks of mailpieces. Further, there is no fork lift assembly in the Belgium '233 patent, only a moveable platform 244 which places a row of items on rails 40. As such, the Belgium '233 patent does not anticipate Claim 4.

Claim 5

Further, the Belgium '233 patent does not disclose a fork lift

assembly being moved into and out of engagement with a large stack of mailpieces. The Belgium '233 patent does not disclose moving a forklift assembly into and out of engagement with a single large stack of mailpieces. As such, the Belgium '233 patent does not anticipate Claim 5.

Claim 6

Further, the Belgium '233 patent does not disclose that a means for transferring includes a plurality of driven rollers. The Belgium '233 patent simply pushes the items into the box with pusher element 248. As such, the Belgium '233 patent does not anticipate Claim 6.

Claim 7

Further, the Belgium '233 patent does not disclose that a means for transferring includes a means for pushing the single large stack. The Belgium '233 patent does not push a single large stack of items. As such, the Belgium '233 patent does not anticipate Claim 7.

Claim 15

For the reasons discussed above, the Belgium '233 patent does not disclose a bridge conveyor delivering a stream of small stacks of mailpieces to a stack accumulator; a stack accumulator combining small stacks of mailpieces into a single large stack of mailpieces

in a desired sequence; and an output tray station engaging a mail tray and releasing the mail tray once filled. The Belgium '233 patent fails to anticipate a conveyor which conveys small stacks of mailpieces, a stack accumulator for accumulating the small stacks into a single large stack, or a traying station which engages and releases a tray. As such, the Belgium '233 patent does not anticipate Claim 15.

Claim 16

Further, the Belgium '233 patent does not disclose that a stack accumulator places successive small stacks on the bottom of a large stack to maintain sequence order of mailpieces in a large stack. The Belgium '233 patent does not accumulate multiple small stacks of mailpieces into a large stack. As such, the Belgium '233 patent does not anticipate Claim 16.

Claim 17

Further, the Belgium '233 patent does not disclose a bridge conveyor having a plurality of belt drives for driving small stacks to a stack accumulator. The Belgium '233 patent merely has a single conveyor for each individual item. As such, the Belgium '233 patent does not anticipate Claim 17.

Claim 18

Further, the Belgium '233 patent does not disclose a bridge

conveyor having a plurality of belt drives including a bottom belt drive and a side belt drive. The Belgium '233 patent merely has a bottom conveyor. As such, the Belgium '233 patent does not anticipate Claim 18.

Claim 19

Further, the Belgium '233 patent does not disclose that a stack accumulator includes a fork lift assembly. The Belgium '233 patent fails to anticipate any fork lift assembly for accumulating multiple small stacks of mailpieces into a single large stack. As such, the Belgium '233 patent does not anticipate Claim 19.

Claim 20

Further, the Belgium '233 patent does not disclose that a stack accumulator includes a fork lift assembly which releasably engages a large stack. The Belgium '233 patent fails to anticipate any fork lift assembly releasably engaging any large stack. As such, the Belgium '233 patent does not anticipate Claim 20.

Claim 21

Further, the Belgium '233 patent does not disclose a sensor for initiating a fork lift cycle when each of the small stacks advances into the sensor. The Belgium '233 patent fails to sense small stacks of mailpieces, and initiate a fork lift cycle in response. As such, the Belgium '233 patent does not anticipate

Claim 21.

Claim 22

Further, the Belgium '233 patent does not disclose a fork lift cycle wherein the fork lift extends under and holds a large stack above each of the small stacks of mailpieces, retracts and releases the large stack onto each small stack of mailpieces, and lowers, is advanced back under and raises the large stack to complete a cycle.

The Belgium '233 patent clearly fails to lift a large stack of mailpieces, and place the large stack on top of each small stack of mailpieces during a fork lift cycle. As such, the Belgium '233 patent does not anticipate Claim 22.

Claim 23

Further, the Belgium '233 patent does not disclose a stack accumulator having a plurality of rollers. The Belgium '233 patent has no such corresponding structure, only a moveable platform 244 which places items on a shelf or rails 40. As such, the Belgium '233 patent does not anticipate Claim 23.

Claim 24

Further, the Belgium '233 patent does not disclose a stack accumulator having a plurality of rollers including driven bottom rollers and driven side rollers. The Belgium '233 patent has no such corresponding structure, only a moveable platform 244 which

places items on a shelf or rails 40. As such, the Belgium '233 patent does not anticipate Claim 24.

Claim 25

Further, the Belgium '233 patent does not disclose a stack accumulator having a plurality of rollers including a top roller. The Belgium '233 patent has no such corresponding structure, as there is nothing engaging the top of items W on rails 40. As such, the Belgium '233 patent does not anticipate Claim 25.

Claim 26

Further, the Belgium '233 patent does not disclose a stack accumulator having a plurality of rollers including a top roller being connected to a pivot arm which triggers a stack height limit sensor. The Belgium '233 patent has no such corresponding structure, as there is no need to sense a height of any stack. As such, the Belgium '233 patent does not anticipate Claim 26.

Claim 27

Further, the Belgium '233 patent does not disclose that a stack accumulator transfers a large stack to a mail tray upon a stack height sensor being triggered. The Belgium '233 patent does not transfer a large stack to a mail tray in response to a stack height sensor. As such, the Belgium '233 patent does not anticipate Claim 27.

Claim 28

Further, the Belgium '233 patent does not disclose a stack accumulator having a plurality of rollers which cooperate to transfer a large stack to a tray. The Belgium '233 patent simply pushes items W and X into a box with bar 248. As such, the Belgium '233 patent does not anticipate Claim 28.

Claim 29

Further, the Belgium '233 patent does not disclose a stack accumulator having a plurality of guides. The Belgium '233 patent has no such corresponding structure, and it appears that the items W and X are not guided by a guide in any manner. As such, the Belgium '233 patent does not anticipate Claim 29.

Claim 30

Further, the Belgium '233 patent does not disclose a stack accumulator having a plurality of guides including a side guide assembly. The Belgium '233 patent has no such corresponding structure, and it appears that the items W and X are not guided by a guide in any manner. As such, the Belgium '233 patent does not anticipate Claim 30.

Claim 31

Further, the Belgium '233 patent does not disclose a stack accumulator having a plurality of guides including a side guide

assembly which is retractable. The Belgium '233 patent has no such corresponding structure, and it appears that the items W and X are not guided by a guide in any manner. As such, the Belgium '233 patent does not anticipate Claim 31.

Claim 32

Further, the Belgium '233 patent does not disclose a stack accumulator having a plurality of guides including a side guide assembly including high friction belt strips. The Belgium '233 patent has no such corresponding structure, and it appears that the items W and X are not guided by a guide in any manner. As such, the Belgium '233 patent does not anticipate Claim 32.

Claim 33

Further, the Belgium '233 patent does not disclose a stack accumulator having a plurality of guides including a rear guide assembly. The Belgium '233 patent has no such corresponding structure, and it appears that the items W and X are not guided by a guide in any manner. As such, the Belgium '233 patent does not anticipate Claim 33.

Claim 34

Further, the Belgium '233 patent does not disclose a stack accumulator having a plurality of guides including a rear guide assembly comprising a flexible belt. The Belgium '233 patent has

no such corresponding structure, and it appears that the items W and X are not guided by a guide in any manner. As such, the Belgium '233 patent does not anticipate Claim 34.

Claim 35

Further, the Belgium '233 patent does not disclose a stack accumulator having a gate. The Belgium '233 patent has no such corresponding structure, as there is nothing separating items W and X from box 170. As such, the Belgium '233 patent does not anticipate Claim 35.

Claim 36

Further, the Belgium '233 patent does not disclose a stack accumulator having a pusher arm. Again, there is no corresponding stack accumulator in the Belgium '233 patent, and thus no pusher arm for pushing a stack of mailpieces. As such, the Belgium '233 patent does not anticipate Claim 36.

Claim 37

Further, the Belgium '233 patent does not disclose an output tray station including a tray latch assembly. The box is freely supported on elements 172 and 180 in the Belgium '233 patent. As such, the Belgium '233 patent does not anticipate Claim 37.

Claim 38

Further, the Belgium '233 patent does not disclose an output

tray station including a tray support ledge. The Belgium '233 patent does not support a tray on a ledge, but supports the entire box instead on elements 172 and 180. As such, the Belgium '233 patent does not anticipate Claim 38.

Claim 39

Further, the Belgium '233 patent does not disclose an output tray station including at least one mail guide. The Belgium '233 patent has no such corresponding, as there is no guide to guide the items into the box. As such, the Belgium '233 patent does not anticipate Claim 39.

- 2) Whether Claims 8-14 and 40-50 are clearly anticipated under 35 U.S.C. §102(e) by Hendrickson et al., U.S. Patent No. 6,241,099 as rejected in the Final Office Action mailed October 8, 2004, and as maintained in the Advisory Action of February 28, 2005.

Claims 8-14 and 40-50 have been rejected under 35 U.S.C. §102(e) as being clearly anticipated by Hendrickson et al., U.S. Patent No. 6,241,099 B1 ("the '099 patent"). For the following reasons, the Examiner's rejection is respectfully traversed.

The '099 patent does not clearly and unequivocally disclose every limitation of Claims 8-14 and 40-50, as determined or interpreted in light of the specification and drawings. Applicants respectfully assert that the Examiner's anticipation rejection

fails to meet the above identified requirements of the law pertaining to 35 U.S.C. §102. Applicants further repeat and reallege all of the arguments made in its prior Amendment and Response of June 28, 2004, as though fully stated herein.

Prior to discussing the individual claims, the following is a general overview of the '099 patent provided for ease of understanding. The '099 patent does not combine multiple small stacks of mailpieces into a single large stack of mailpieces. To the contrary, the '099 patent discloses a system wherein mailpieces are staged, and then merged individually into single output stream, and then individually fed into a tray. For this reason alone, *inter alia*, the '099 patent does not anticipate Claims 8-14 and 40-50.

The Examiner alleges that the '099 patent combines multiple small stacks of mailpieces into a single large stack because the '099 patent's Abstract indicates that:

"mail items are sorted ... into a plurality of subsets of mail items" (the small stack) "mail items are then collated and merged into a single output stream from the respective subsets of mail items ... Portions of the output stream ... are collected in batches" (the large stack) "which maintain the sequence."

The statement that the '099 patent combines multiple small stacks of mailpieces into a single large stack is inaccurate and cannot

properly serve as the basis of an anticipation rejection under the law pertaining to 35 U.S.C. §102. Nonetheless, assuming for the sake of argument that the '099 patent resulted in the creation of a single large stack from multiple small stacks, the method of creating such a single large stack would still be very different and would not anticipate the steps of Claims 8-14 and 40-50.

The '099 patent never conveys stacks of mailpieces. Instead, the mailpieces are moved individually. Further, the '099 patent does not maintain sequence order of the mailpieces. Instead, the mailpieces are re-sequenced at the staging station. Also, as indicated above, the '099 patent does not create a single large stack from multiple small stacks, and does not transfer the single large stack into a tray via a stack accumulator. Thus, the '099 patent does not clearly and unequivocally disclose the steps of creating a single large stack from multiple small stacks in the manner claimed in Claims 8-14 and 40-50.

Accordingly, under the law pertaining to 35 U.S.C. §102, the '099 patent clearly fails to anticipate numerous elements in Claims 8-14 and 40-50, argued separately below:

Claim 8

For the reasons discussed above the '099 patent does not disclose the steps of combining multiple small stacks of mailpieces

into a single large stack of mailpieces while maintaining sequence order, and transferring the large stack of mailpieces into a tray.

The '099 patent does not combine small stacks of mailpieces into a single large stack of mailpieces while maintaining sequence order, nor does it transfer a single large stack into a tray; rather the mailpieces are individually fed to the tray. As such, the '099 patent does not anticipate Claim 8.

Claim 9

Further, the '099 patent does not disclose the step of releasably engaging a tray during the step of transferring. The tray in the '099 patent appears to freely sit on a platform (see Figure 11) and is not releasably engaged during the step of transferring. As such, the '099 patent does not anticipate Claim 9.

Claim 10

Further, the '099 patent does not disclose the step of conveying a stream of small stacks of mailpieces. The '099 patent does not convey stacks of mailpieces. As such, the '099 patent does not anticipate Claim 10.

Claim 11

Further, the '099 patent does not disclose the step of using a fork lift assembly in the step of combining. The '099 patent does

not use a fork lift assembly to combine multiple small stacks of mailpieces. As such, the '099 patent does not anticipate Claim 11.

Claim 12

Further, the '099 patent does not disclose the step of selectively raising and lowering, and selectively positioning the fork lift assembly into and out of engagement with a large stack of mailpieces. The '099 patent does not use a fork lift assembly to combine multiple small stacks of mailpieces. As such, the '099 patent does not anticipate Claim 12.

Claim 13

Further, the '099 patent does not disclose the step of driving a plurality of rollers in contact with a large stack during the step of transferring. The '099 patent does not drive a large stack of mailpieces. As such, the '099 patent does not anticipate Claim 13.

Claim 14

Further, the '099 patent does not disclose the step of pushing a large stack during the step of transferring. The '099 patent does not push a large stack of mailpieces. As such, the '099 patent does not anticipate Claim 14.

Claim 40

For the reasons discussed above the '099 patent does not

disclose the steps of combining multiple small stacks of mailpieces into a single large stack by conveying a stream of small stacks of mailpieces via a bridge conveyor; combining the small stacks of mailpieces into a single large stack of mailpieces in a desired sequence via a stack accumulator; and transferring the large stack to a mail tray via the stack accumulator. The '099 patent does not convey and combine small stacks of mailpieces into a single large stack, and does not transfer the large stack into a tray. As such, the '099 patent does not anticipate Claim 40.

Claim 41

Further, the '099 patent does not disclose the step of releasably engaging a tray in an output station proximate the stack accumulator. The '099 patent does not releasably engage the tray. As such, the '099 patent does not anticipate Claim 41.

Claim 42

Further, the '099 patent does not disclose the step of placing successive small stacks on the bottom of a large stack to maintain sequence order during the step of combining. The '099 patent does not combine multiple small stacks of mailpieces into a large stack. As such, the '099 patent does not anticipate Claim 42.

Claim 43

Further, the '099 patent does not disclose the steps of

engaging and holding a large stack, advancing a small stack under the large stack, retracting a fork lift assembly to release the large stack onto the small stack, lowering the fork lift assembly below the large stack, advancing the fork lift assembly under the large stack, and raising the large stack to complete a fork lift cycle. The '099 patent does not disclose cycling a lift assembly for accumulating multiple small stacks of mailpieces into a single large stack. As such, the '099 patent does not anticipate Claim 43.

Claim 44

Further, the '099 patent does not disclose the step of sensing an advancing small stack to initiate a fork lift cycle. The '099 patent fails to lift a stack of mailpieces during a fork lift cycle initiated by sensing an advancing small stack. As such, the '099 patent does not anticipate Claim 44.

Claim 45

Further, the '099 patent does not disclose the step of driving small stacks of mailpieces to a stack accumulator via a plurality of belt drives. The '099 patent simply does not convey stacks of mailpieces. As such, the '099 patent does not anticipate Claim 45.

Claim 46

Further, the '099 patent does not disclose the step of driving

a plurality of rollers in the stack accumulator to transfer a large stack to a tray. The '099 patent has no such corresponding step, and instead feeds the envelopes individually to the tray. As such, the '099 patent does not anticipate Claim 46.

Claim 47

Further, the '099 patent does not disclose the step of opening a stack transfer gate to allow a large stack to be advanced by a plurality of rollers. The '099 patent has no such corresponding step, and instead feeds the envelopes individually to the tray without having to open a transfer gate. As such, the '099 patent does not anticipate Claim 47.

Claim 48

Further, the '099 patent does not disclose the step of sensing the height of a large stack via a sensor to initiate the step of transferring. The '099 patent has no such corresponding step to initiate transferring of a large stack to a tray, since the envelopes are individually fed to the tray. As such, the '099 patent does not anticipate Claim 48.

Claim 49

Further, the '099 patent does not disclose the step of activating a pusher arm to push the stack and assist in the transfer to the mail tray. The '099 patent has no such

corresponding step to assist in the transfer of a large stack to a tray, since the envelopes are individually fed to the tray. As such, the '099 patent does not anticipate Claim 49.

Claim 50

Further, the '099 patent does not disclose the steps of releasably engaging a tray with a tray latch assembly. The tray in the '099 patent appears to freely sit on a platform (see Figure 11) and is not releasably engaged during the step of transferring. As such, the '099 patent does not anticipate Claim 50.

VIII. Claims Appendix

Set forth below is a copy of the claims (1-50) involved in the appeal:

1. A flats mail autotrayer system comprising:
means for combining multiple small stacks of mailpieces into a single large stack of mailpieces while maintaining sequence order; and
means for transferring said large stack to a tray.
2. The system of Claim 1, further comprising means for releasably engaging a tray.
3. The system of Claim 1, further comprising means for conveying a stream of small stacks of mailpieces to said means for

combining.

4. The system of Claim 1, wherein said means for combining includes a fork lift assembly.

5. The system of Claim 4, wherein said fork lift assembly is selectively raised and lowered, and is selectively positionable into and out of engagement with said large stack during a fork lift cycle.

6. The system of Claim 1, wherein said means for transferring includes a plurality of driven rollers.

7. The system of Claim 6, wherein said means for transferring further includes a means for pushing.

8. A method of flats mail autotraying, comprising the steps of:

combining multiple small stacks of mailpieces into a single large stack of mailpieces while maintaining sequence order; and

transferring said large stack to a tray.

9. The method of Claim 8, further comprising the step of releasably engaging a tray during the step of transferring.

10. The method of Claim 8, further comprising the step of conveying a stream of small stacks of mailpieces to said large stack.

11. The method of Claim 8, wherein said step of combining includes using a fork lift assembly.

12. The method of Claim 11, wherein said step of combining includes the step of selectively raising and lowering said fork lift assembly, and selectively positioning said fork assembly into and out of engagement with said large stack during a fork lift cycle.

13. The method of Claim 8, wherein said step of transferring includes the step of driving a plurality of rollers in contact with said large stack.

14. The method of Claim 13, wherein said step of transferring further includes the step of pushing said large stack.

15. An apparatus for combining multiple small stacks of mailpieces into a single large stack of mailpieces and then transferring the large stack to a standard flats mail tray, comprising:

a bridge conveyor;

a stack accumulator proximate said bridge conveyor; and

an output tray station proximate said stack accumulator;

said bridge conveyor receiving a stream of small stacks of mailpieces and sequentially delivering said small stacks of mailpieces to said stack accumulator;

said stack accumulator combining said small stacks of mailpieces into said large stack in a desired sequence, and transferring said large stack to said tray;

said output tray station engaging an empty tray as said large stack is transferred to the tray, and releasing said tray once filled.

16. The apparatus of Claim 15, wherein said stack accumulator maintains a sequence order of the mailpieces in said large stack by placing successive small stacks on the bottom of the large stack.

17. The apparatus of Claim 15, wherein said bridge conveyor includes a plurality of belt drives for driving said small stacks to said stack accumulator.

18. The apparatus of Claim 17, wherein said plurality of belt drives includes a bottom belt drive and a side belt drive.

19. The apparatus of Claim 15, wherein said stack accumulator includes a fork lift assembly.

20. The apparatus of Claim 19, wherein said fork lift assembly releasably engages said large stack.

21. The apparatus of Claim 20, further comprising a sensor for initiating a fork lift cycle when each of said small stacks of mailpieces advances into said sensor.

22. The apparatus of Claim 21, wherein said fork lift extends

under and holds said large stack above each of said small stacks of mailpieces, retracts when said fork lift cycle is initiated, releasing said large stack onto each of said small stacks of mailpieces, lowers to a position under said large stack, advances back under said large stack, and raises to lift said large stack to complete said fork lift cycle.

23. The apparatus of Claim 15, wherein said stack accumulator includes a plurality of rollers.

24. The apparatus of Claim 23, wherein said plurality of rollers includes driven bottom rollers and driven side rollers.

25. The apparatus of Claim 23, wherein said plurality of rollers includes a top roller.

26. The apparatus of Claim 25, further comprising a stack height limit sensor, said top roller being operatively connected to a pivot arm, said pivot arm raising as successive small stacks are added to said large stack, said pivot arm triggering said stack height limit sensor upon said large stack reaching a predetermined height.

27. The apparatus of Claim 26, wherein said stack accumulator transfers said large stack to said tray upon said stack height limit sensor being triggered.

28. The apparatus of Claim 27, wherein said plurality of

rollers cooperate to transfer said large stack to said tray.

29. The apparatus of Claim 15, wherein said stack accumulator includes a plurality of guides.

30. The apparatus of Claim 29, wherein said plurality of guides includes a side guide assembly.

31. The apparatus of Claim 30, wherein said side guide assembly is retractable.

32. The apparatus of Claim 30, wherein said side guide assembly includes high friction belt strips.

33. The apparatus of Claim 29, wherein said plurality of guides includes a rear guide assembly.

34. The apparatus of Claim 33, wherein said rear guide assembly is a flexible belt.

35. The apparatus of Claim 15, wherein said stack accumulator includes a gate.

36. The apparatus of Claim 15, wherein said stack accumulator includes a pusher arm.

37. The apparatus of Claim 15, wherein said output tray station includes a tray latch assembly.

38. The apparatus of Claim 15, wherein said output tray station includes a tray support ledge.

39. The apparatus of Claim 15, wherein said output tray

station includes at least one mail guide.

40. A method for combining multiple small stacks of mailpieces into a single large stack of mailpieces and then transferring the large stack to a standard flats mail tray, said method comprising the steps of:

conveying a stream of small stacks of mailpieces to a stack accumulator via a bridge conveyor;

combining said small stacks of mailpieces into said large stack in a desired sequence via said stack accumulator; and

transferring said large stack to said tray via said stack accumulator.

41. The method of Claim 40, further comprising the step of: releasably engaging a tray in an output tray station proximate said stack accumulator.

42. The method of Claim 40, wherein said step of combining includes the step of maintaining a sequence order of the mailpieces in said large stack by placing successive small stacks on the bottom of the large stack.

43. The method of Claim 42, wherein said step of maintaining a sequence order includes the steps of:

engaging and holding said large stack above a surface of said stack accumulator via a fork lift assembly;

advancing said small stack on said surface and under said large stack;

retracting said fork lift assembly to release said large stack onto said small stack;

lowering said fork lift assembly to a position below said large stack;

advancing said fork lift assembly back under said large stack; and

raising said fork lift assembly to lift said large stack to complete a fork lift cycle.

44. The method of Claim 43, further comprising the step of sensing an advancing small stack via a sensor to initiate said fork lift cycle.

45. The method of Claim 40, wherein said step of conveying includes the step of driving said small stacks to said stack accumulator via a plurality of belt drives.

46. The method of Claim 40, wherein said step of transferring further includes the step of driving a plurality of rollers in said stack accumulator to transfer said large stack to said tray.

47. The method of Claim 46, further comprising the step of opening a stack transfer gate to allow said large stack to be advanced by said plurality of rollers.

48. The method of Claim 46, further comprising the step of sensing the height of said large stack via a sensor to initiate said step of transferring.

49. The method of Claim 46, further comprising the step of activating a pusher arm to engage and push said large stack to assist in the step of transferring.

50. The method of Claim 41, wherein said step of releasably engaging includes the step of engaging said tray with a tray latch assembly.

IX. Evidence Appendix

None

X. Related Proceedings Appendix

None

Conclusion

Applicant respectfully asserts that the Examiner's rejection of Claims 1-50 are inappropriate. Applicant respectfully requests that the Examiner's rejections be overturned, and that Claims 1-50 be passed to allowance.

It is noted that with the exception of Claim 2, the Examiner

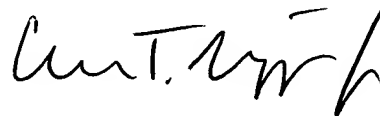
has not identified the alleged corresponding elements of the cited references which are relied upon in the anticipation rejections of Claims 1-50, discussed above. Applicant respectfully requests that the Examiner identify each such alleged corresponding element so that Applicant has the opportunity to fairly address the same in its Reply Brief.

The appeal brief fee is submitted herewith via Credit Card Payment Form PTO-2038. However, the Commissioner is hereby authorized to charge this fee, if there is any problem with the credit card payment, or any additional fees which may be required to Deposit Account No. 16-0657.

A postcard is enclosed evidencing receipt of the same.

Respectfully submitted,

PATULA & ASSOCIATES, P.C.

A handwritten signature in black ink, appearing to read "C. T. Riggs Jr.", with a stylized flourish at the end.

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